

TAG: Astronomy
Big Question Introduction

Name _____
Hour _____ Date _____

What's the Big Question?

Read pp. 3 & 4.

What is the big question in this unit?



Read pp. 5 & 6. After watching the video, discuss collisions with your class.

Read pp. 7 & 8 and follow your teacher's instructions for the Tennis Ball Demolition Derby.

Trial 1:

Trial 2:



Reflect

Use the results of your investigation to answer these questions with your group. Be prepared to share your answers with the class.

1. a. Did the results match your predictions?

b. Why or why not?
2. a. Compare the collisions of the two trials in more detail. How were the collisions of the two trials similar to each other?

b. How were they different?

c. Were the collisions more violent in one trial?

d. Where did most collisions occur in each trial?

e. In each trial, how did early collisions affect later collisions?

3. What do you think would happen to the number of collisions if everyone had rolled two tennis balls each time?
4. What do you think would happen to the number of the collisions if the number of balls stayed the same but people sat in a circle that was three times bigger?
5.
 - a. Is there any way to predict when specific collisions will occur in either trial?
 - b. Why or why not?
6. How do you think the motion of the balls might compare to the way in which objects move and collide in the solar system?
7.
 - a. Now that you know more about collisions, answer this question again: Are any of the objects you know in space likely to collide?
 - b. Why or why not?

Introducing the Big Question

Read this section on pp. 9 & 10. How will you be using the information you are learning in this unit?



Reflect & Create a Project Board

Read through this section on pp. 10-12 with your class and start your project board.